

Application Serial No. 10/583,881  
Reply to Office Action of June 8, 2009

PATENT  
Docket: CU-4891

**REMARKS**

In the Office Action dated June 8, 2009, claims 1-3, 5-9, and 11 are pending and are rejected under 35 U.S.C. §103(a). The Applicant asserts that the rejections set forth in the Official Action have been overcome by amendment and/or are traversed by argument below.

In the Claims, please amend claims 1 and 8. Claims 1 and 8 have been amended to include the feature "wherein the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof and is capable of supplying washing water to a paper piece in the air and water through-flow drum". Support for this amendment can be found in the original disclosure, for instance on page 14, line 29, to page 15, line 2.

In the Claims, please newly add claims 12 and 13. These new claims also find support in the original disclosure. For example, support can be found on page 15, lines 11-17. No new matter has been added by way of these amendments. The amendments to the claims can be viewed in the Amendments section in the Listing of claims beginning on page 3 of this paper.

**Rejection of claims 1-3, 5-9, and 11 under 35 U.S.C. §103(a).**

The Examiner rejected claims 1-3, 5-9, and 11 under 35 U.S.C. §103(a) as being unpatentable over JP 06-142638 ("JP'638"), Satoru et al., in view of Hamilton (Pulp and Paper Manufacture: Secondary Fibers and Non-wood Pulpings).

The Applicant respectfully disagrees and submits that the claims are non-obvious and allowable.

To establish *prima facie* obviousness all the limitations of a claimed invention must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ

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580 (CCPA 1974); MPEP 2143.03. The cited reference does not teach or suggest all the limitations of the Applicant's invention, alone or in combination.

Amended claims 1 and 8 recite features not disclosed or suggested by JP'638 or Hamilton, alone or in combination. Specifically, the combination of references does not teach, disclose or suggest "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" and "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof and is capable of supplying washing water to a paper piece in the air and water through-flow drum" as recited in amended claim 1.

The combination of references does not also teach, disclose, or suggest "a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a burnt gypsum component adhering to the paper piece from the paper piece" and "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the e other end thereof and is capable of supplying washing water to a paper piece in the air and water through-flow drum" as claimed in amended claim 8.

In JP'638, paragraph [0008], is taught "Then, a total amount (1.31 kg) of paper pieces to which the above-mentioned calcined gypsum adhered was thrown into 20 liters of water, stirred lightly, and subsequently recovered from the sieve. This operation was repeated three times whereby it was possible to rinse the calcined gypsum adhering to the paper pieces completely so as to obtain paper pieces to which no gypsum adhered, and it was possible to obtain paper pieces available as waste paper."

JP'638 fails, however, to disclose or suggest any of the features of "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" as

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recited in amended claim 1 and" a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a burnt gypsum component adhering to the paper piece from the paper piece," as recited in claims 1 and 8.

Hamilton may disclose that "Once the ink has been removed from the fiber, generally by chemical or mechanical means, there are three basic approaches to its removal from the aqueous pulp slurry: 1. Washing. This is a mechanical process of rinsing ink, ash, and dirt particles from the pulp" on page 189, lines 2-8; "gravity deckers" in Fig. 82 and Fig. 83 on page 197 and Fig. 84 on page 198; and that "The fine-mesh wire retains the shorter fibers, and the higher cylinder speed means that a thinner mat of fibers is formed, allowing the dispersed ink and filler solids to pass through with the water" on page 198, lines 8-12.

When referring to the disclosures on page 189, lines 2-8; in Fig. 82 and Fig. 83 on page 197; and on page 198, lines 8-12 in the right column (in particular, "the dispersed ink and filler solids to pass through with the water") and in Fig. 84 on page 198 of Hamilton, a person of skill in the art would understand that "washing" as disclosed in Hamilton should be a mechanical process for rinsing ink and a filler solid such as ash from an aqueous pulp slurry after the ink and the filler solid such as ash have been removed from a paper fiber by means of water, and accordingly, a gravity decker which may be used for washing as disclosed in Hamilton should be to separate ink and a filler solid such as ash dispersed in water from a paper fiber after the ink and the filler solid such as ash have been removed from the paper fiber by means of water.

In other words, if the "ash" as disclosed in Hamilton included a gypsum as stated by the Examiner in the Office Action on page 3, lines 13-15, Hamilton would not disclose or suggest a gravity decker removing a gypsum from a paper fiber although Hamilton may disclose or suggest a gravity decker separating from a paper fiber a gypsum removed from the paper fiber previously and dispersed in water.

Therefore, Hamilton also fails to disclose or suggest any of the above-mentioned

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features of the claims as in "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" as in amended claim 1 and "a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a burnt gypsum component adhering to the paper piece form the paper piece" as in amended claim 8.

Furthermore, if it was possible to combine "a total amount (1.31 kg) of paper pieces to which the above-mentioned calcined gypsum adhered was thrown into 20 liters of water, stirred lightly, and subsequently recovered on a sieve. This operation was repeated three times" as is disclosed in paragraph [0008] of JP'638 with gravity decker separating from a paper fiber a gypsum removed from the paper fiber previously and dispersed in water is disclosed on page 189, right column lines 2-8, in Fig. 82 and Fig. 83 on page 197, and at lines 8-12 in the right column and in Fig. 84 on page 198 in Hamilton, a gravity decker separating from a paper piece a calcined gypsum removed from the paper piece previously and dispersed in water by throwing and lightly stirring the paper piece to which the calcined gypsum adheres in water would be derived from the disclosures of JP'638 and Hamilton. However, a gravity decker removing a gypsum from a paper piece to which the gypsum adheres wherein the paper piece is thrown into and lightly stirred in water *would not* obviously be derived by a person of skill in the art from the disclosures of JP'638 and Hamilton.

Thus, even if it was possible to combine the disclosures of JP'638 and Hamilton, it would not be obvious to a person of skill in the art to provide any of the features of "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" as recited in amended claim 1 and "a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a burnt gypsum component adhering to the paper piece form the paper piece" as recited in amended claim 8.

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Moreover, JP'638 fails to disclose or suggest the features of "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof and is capable of supplying washing water to a paper piece in the air and water through-flow drum" as recited in amended independent claims 1 and 8.

Furthermore, Hamilton may disclose that "The ends of the cylinder are sealed to hold the effluent" on page 197, lines 6-7, in the left column, and "As the cylinder rotates a loose fiber mat forms on the wire mesh; this is picked up by a rubber couch roll and removed by a doctor blade for discharge. Showers are often installed to continuously clean the wire" on page 197, left column of line 9 to line 1 in the right column, and "Gravity decker" and "Gravity decker operation" in Fig. 82 and Fig. 83 on page 197, respectively. However, "The ends of the cylinder are sealed to hold the effluent" on page 197, lines 6-7, in the left column of Hamilton and "Gravity decker" and "Gravity decker operation" in Fig. 82 and Fig. 83 on page 197 of Hamilton do not disclose or suggest, but rather conflict with "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof" as recited in amended claims 1 and 8.

Also, "As the cylinder rotates a loose fiber mat forms on the wire mesh; this is picked up by a rubber couch roll and removed by a doctor blade for discharge. Showers often installed to continuously clean the wire" on page 197, line 9 left column to line 1 right column, of Hamilton and "Gravity decker operation" in Fig. 83 on page 197 of Hamilton does not disclose or suggest, but rather conflicts with the feature "the rotary drum-type washing device" "is capable of supplying washing water to a paper piece in the air and water through-flow drum" as recited in amended claims 1 and 8.

Thus, Hamilton fails to disclose or suggest the features of claims 1 and 8 wherein "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof and is capable of supplying washing water to a paper piece in the air and

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water through-flow drum".

Accordingly, it would not be obvious of a person of skill in the art to provide the features of "the rotary drum-type washing device comprises a paper piece inlet at one end of rotatably lying air and water through-flow drum and a paper piece outlet at the other end thereof and is capable of supplying washing water to a paper piece in the air and water through-flow drum" as recited in independent claims 1 and 8 because these features are not disclosed or suggested by the references, in combination or in whole.

The Applicant submits that at least for the reasons stated above, claims 1 and 8 are non-obvious and allowable. The Applicant respectfully requests that the Examiner withdraw this ground of rejection as to claims 1 and 8.

It is axiomatic that if an independent claim is allowable, then any claim depending therefrom is also allowable. Since claims 2-3, 5-7 and 12 depend from claim 1 and claims 9, 11 and 13 depend from claim 8, the Applicant respectfully requests that the remarks made over claims 1 and 8 be both reflected in the dependent claims and also overcome any rejections of those claims. In fact, any additional elements as are found in the claims depending therefrom further serve to distinguish the claims from the alleged prior art. At least for these reasons claims 2-3, 5-7, 9, and 11-13 are also non-obvious. The Applicant thus respectfully requests that the Examiner withdraw the rejection of Claims 1-3, 5-9, and 11 under 35 U.S.C. § 103(a).

### CONCLUSIONS

The Applicant respectfully contends that all conditions of patentability are met in the pending claims. The Applicant respectfully submits that this application should be in condition for allowance. Furthermore, the Applicant respectfully requests favorable consideration.

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Respectfully Submitted,

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